

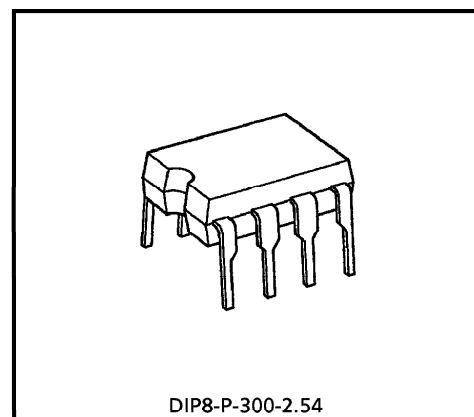
TD6127BP

ECL PRESCALLER FOR COMMUNICATIONS RADIO

TD6127BP is a 2 modulus prescaler developed for communications radio of PLL frequency synthesizer type. This is suitable for mobile radio telephone and personal communications radio etc.

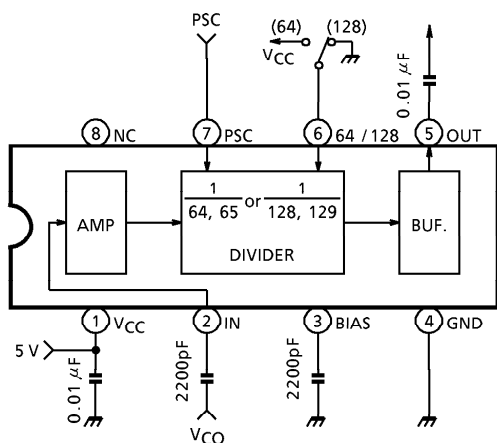
FEATURES

- Maximum operating frequency is 1 GHz.
- 2 modulus prescaler : $N = 64/65$ or $N = 128/129$
- Input voltage sensitivity is $50 \text{ mV}_{\text{rms}}$.
- The package is DIP 8 pins.

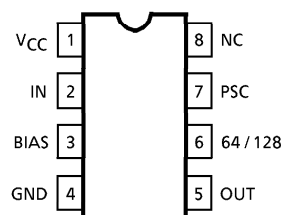


Weight : 0.5 g (Typ.)

BLOCK DIAGRAM



PIN CONNECTION (TOP VIEW)



980910EBA2

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PIN FUNCTION

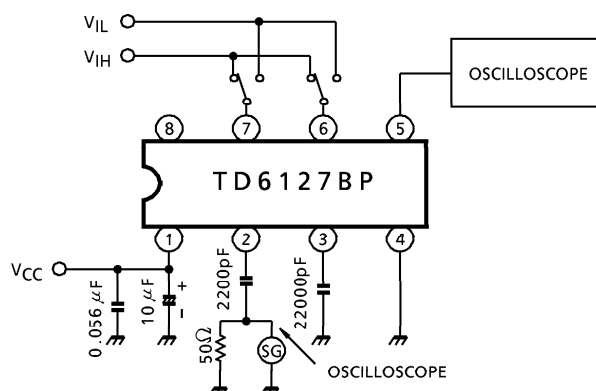
PIN No.	SYMBOL	FUNCTION	REMARKS
1	V _{CC}	Power supply terminal	—
2	IN	Input terminal of local oscillator	—
3	BIAS	Bias capacitance terminal	—
4	GND	Earth terminal	—
5	OUT	Output terminal	—
6	64 / 128	Dividing mode selection terminal "H" level : 64, 65 "L" level : 128, 129	—
7	PSC	2 modulus control terminal "H" level : N "L" level : N + 1	—
8	NC	Not connected	—

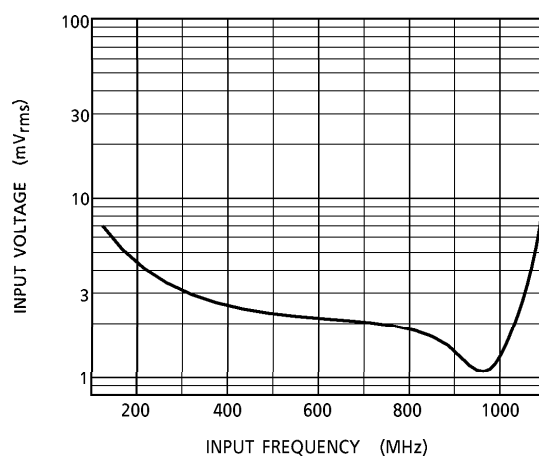
MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Power Supply Voltage	V_{CC}	6.5	V
Power Dissipation	P_D	450	mW
Input Voltage	V_{in}	$-0.3 \sim V_{CC} + 0.3$	V
Operating Temperature	T_{opr}	$-30 \sim 85$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-55 \sim 150$	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS(Unless otherwise specified, $V_{CC} = 4.5 \sim 5.5\text{ V}$, $T_a = -30 \sim 85^\circ\text{C}$, $f_{IN} = 400 \sim 1000\text{ MHz}$)

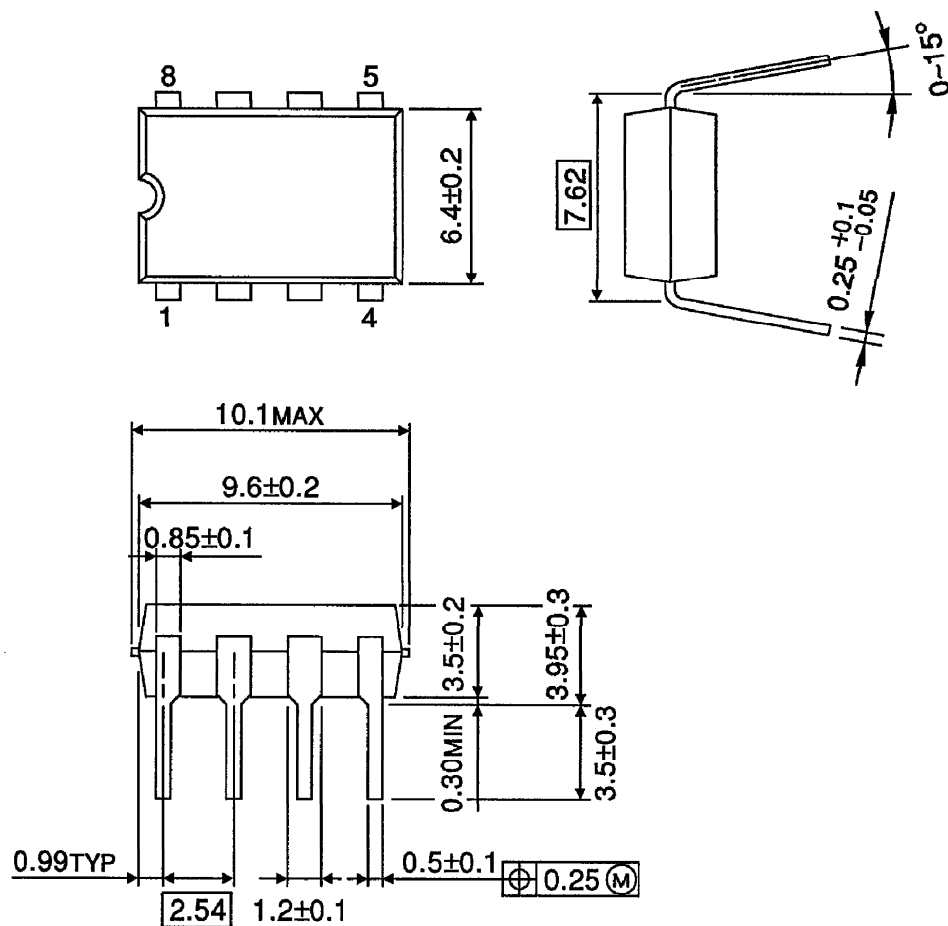
CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage	V_{CC}	—	—	4.5	5.0	5.5	V
Supply Current	I_{CC}	—	$V_{CC} = 5.0\text{ V}$	—	40	70	mA
Operating Frequency Range	f_{IN}	—	—	400	—	1000	MHz
Input Voltage Range	V_{IN}	—	—	50	—	250	mV _{rms}
Output Amplitude	V_{OUT}	—	—	1.0	1.2	—	V _{p-p}
Input Voltage	"L" Level	V_{IL}	PSC	0	—	$V_{CC} \times 0.3$	V
Input Current	"H" Level	V_{IH}	PSC	$V_{CC} \times 0.3$	—	V_{CC}	V
	"L" Level	I_{IL}	PSC $V_{CC} = 5.0\text{ V}$, $V_{IL} = 1.0\text{ V}$	-700	—	-200	μA
	"H" Level	I_{IH}	PSC $V_{CC} = 5.0\text{ V}$, $V_{IH} = 4.0\text{ V}$	-200	—	-50	μA

TEST CIRCUIT (Input voltage sensitivity)

INPUT VOLTAGE SENSITIVITY $(V_{CC} = 5.0\text{ V}, T_a = 25^\circ\text{C})$ 

OUTLINE DRAWING
DIP8-P-300-2.54

Unit : mm



Weight : 0.5 g (Typ.)